

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph numbered [0001] with the following paragraph:

[0001] The present invention relates to the measurement of slip resistance on surfaces at different installations including walking paths and vehicle travel roads, airfields, decks of naval ships, passageways, etc.

Please replace paragraph numbered [0003] with the following paragraph:

[0003] The measurement of surface slip resistance is necessary to determine whether a surface is safe for walking of individuals or movement of equipment thereon, so as to prevent accidents for example. Slip meters for such purposes are generally known, such as the tribometer disclosed in U.S. Patent No. 5,259,236 to English. Such slip meter instruments are designed for manually controlled testing of smooth or textured surfaces, involving manual movement of a slip index gauge, pressure adjustment of a hydraulic type of actuator and change of its air cylinder, and ~~as well as~~ manual recording of slip index number. Furthermore, such prior art slip meters measure surface traction within a rather limited scale range, which often excludes some ~~worn~~ non-skid surfaces that are worn out. It is therefore an important object of the present invention to provide a slip meter device that is portable and avoids the manual labor intensive tasks heretofore required for operation thereof, as well as to improve operational capability so as to enlarge coverage of surface traction area including worn out non-skid surfaces and otherwise automate slip resistance measurement ~~and~~ , as well as to make the slip meter device user friendly.

Please replace paragraph numbered [0015] with the following paragraph:

[0015] Referring now to the drawings in detail, FIGS. 1-3 illustrate a tribometer type of portable slip resistance measuring device 10 disposed on a surface 12 to be tested. The slip resistance measuring device 10 embodies a generally rectangular frame 14 through which various components of the device 10 are supported on the test surface 12, including an angularly positioned mast assembly 16 having a pair of mast arms 17 pivotally connected at their lower ends by hinges 19 to the frame 14, and a cross-beam 18 interconnecting the upper ends of the mast arms 17. An axially elongated magnetic actuator 20 is pivotally suspended by a hinge 22 at its upper end from the cross-beam 18 midway between the mast arms 17 as shown in FIG. 1. Projecting from the lower end of the magnetic actuator 20 is an actuator rod 24 connected through an attachment plate 26 to a strain gauge plate 28 having a test specimen 30 attached thereto adjacent its lower end as shown in FIGS. 1, 2 and 4. The strain gauge plate 28 is angularly positioned over the test surface 12 at a predetermined inclination angle (32) ~~to the test surface 12 thereto~~ as designated in FIGS. 2 and 4 by angular displacement of the mast arms 17 about the hinges 19 on the frame 14. Such angular positioning of the mast arms 17 and the magnetic actuator 20 with the strain gauge plate 28 is effected by means of an electric position adjustment motor 34 pivotally mounted on the frame 14 by a housing 36, as shown in FIGS. 1 and 2[,]. ~~enclosing~~ The housing 36 encloses control circuitry associated with the motor 34 as hereinafter described for pivotal displacement of the mast arms 17 through an actuator rod 38 extending from the motor 34 and pivotally connected to the mast arms 17 and to the magnetic actuator 20 by a hinge bracket 40.

Please replace paragraph numbered [0016] with the following paragraph:

[0016] The magnetic actuator 20 as shown in FIG. 1 includes a tubular housing 42 pivotally suspended from the mast cross-beam 18 by the hinge 22. The rod 24 extends from the housing 42 to the strain beam plate 28 for slidable displacement thereof. A magnetic coil 44 associated with the actuator 20 is enclosed within the housing 42 as shown in FIG. 4 for imparting a linear displacing force to the rod 24 when the coil 44 is electrically energized. The magnetic actuator 20 thereby applies linear force through the rod 24 and the strain beam plate 28 to the test specimen 30 for positioning thereof at the inclination angle 32 to the test surface 12. As a result of such magnetic action of the actuator 20, the test specimen 30 by engagement with the test surface 12 imposes a strain on the plate 28 sensed through a load cell 46 positioned thereon as diagrammed in FIG. 5 to provide electrical signal data on slip resistance as hereinafter pointed out.

Please replace paragraph numbered [0017] with the following paragraph:

[0017] FIG. 6 illustrates the circuitry within the housing 36 for establishing operational relationships established in for the slip resistance measuring device 10 as hereinbefore described. The electrical energy for effecting fully automatic operation of the device 10 is derived from a replaceable battery 48 connected through a start switch 50 to operational circuitry 52 connected to the magnetic coil 44 for energization thereof to operate the electromagnetic actuator 20 when the strain gauge plate 28 is positioned at the inclination angle 32 during slip resistance measurement, reflected by signals produced by the load cell 46, based on various known physical characteristics of the strain plate 28 and associated locational relationships, including strain (E) and distance (ℓ) between the load cell 46 on the strain plate 28 and the point from which force is applied through the test specimen 30 to the test surface 12 for strain measurement as shown in FIG. 6. Other

characteristics and relationships involved include strain plate stress (σ), material modulus (E), applied moment (M), inertia (I), weight (W), thickness (h) and width (b). The signals so produced at the load cell 46 are fed to a computer circuit 53, diagrammed in FIG. 6, for direct and automated readout of slip resistance data.